Statutory Guideline 01/09

Priority infrastructure plans and infrastructure charges schedules

A *Sustainable Planning Act 2009* statutory guideline

Queensland Government

The Department of Infrastructure and Planning brings together planning, local government and infrastructure responsibilities into one department enabling government to deliver integrated solutions, face the state's population and economic challenges and secure a sustainable future for Queensland.

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Contents

Introduction

This guideline has been prepared under the *Sustainable Planning Act 2009* (SPA) and describes how to prepare and implement priority infrastructure plans (PIPs), including (if applicable) infrastructure charges schedules (ICSs).

SPA requires local governments to follow this guideline when making or amending PIPs or ICSs[1]. A decision flowchart for which PIP process to use is shown at Figure 1 below.

The guideline consists of four parts:

a. Part 1 deals with matters related to infrastructure planning for a PIP
b. Part 2 identifies options and considerations for funding infrastructure under a PIP
c. Part 3 deals with preparing and implementing an ICS
d. Part 4 includes appendices, including templates for preparing PIPs.

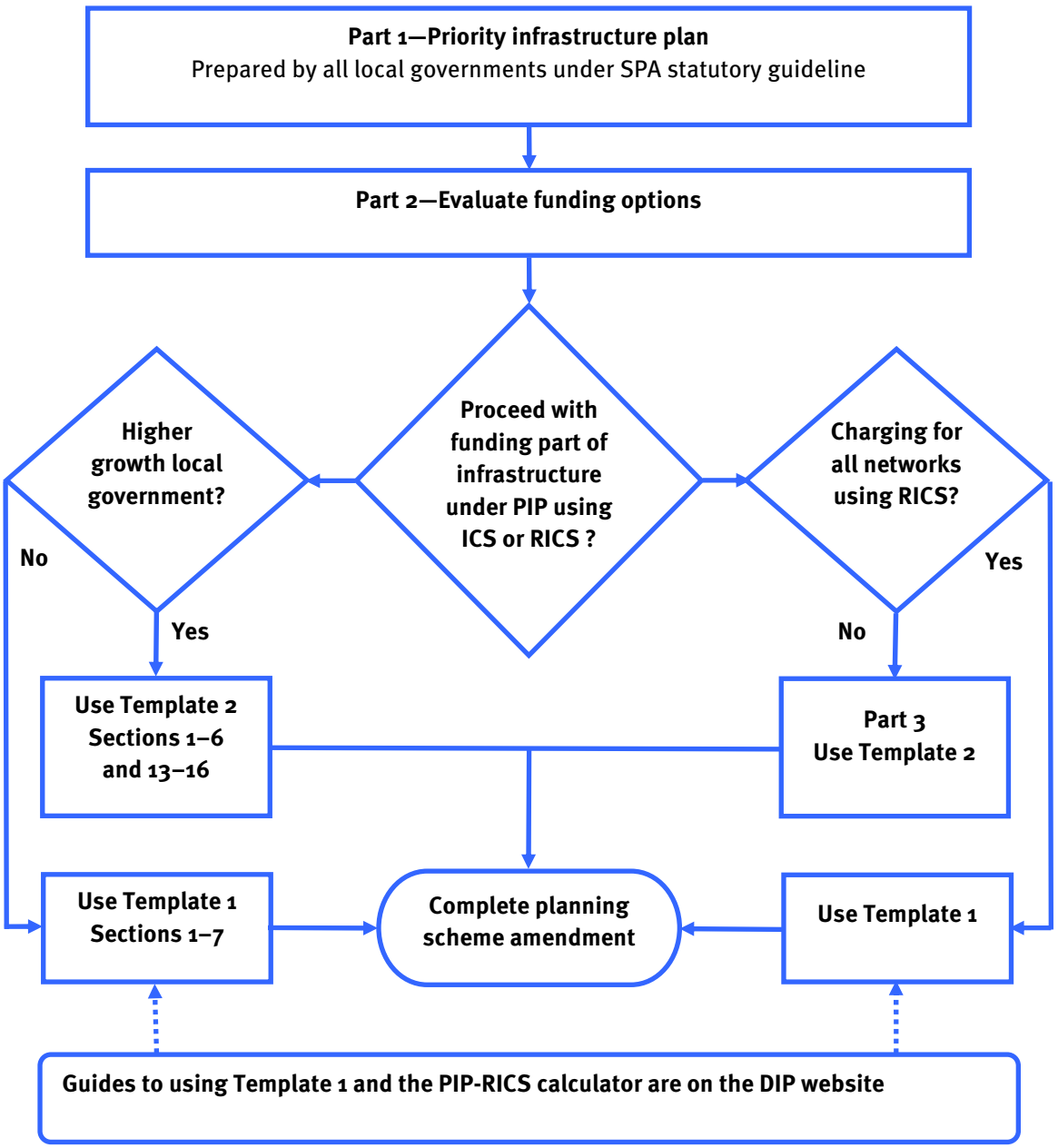
The guideline should be read as a whole, including the templates in Appendices 2 and 3. The guideline should also be read with SPA.

The department also periodically releases advisory notes, tools and implementation notes about preparing and implementing PIPs, ICSs and a regulated infrastructure charges schedule (RICS)[2].

[1] SPA—Sections 627 and 630.

[2] PIPs and ICSs form part of the relevant planning scheme. RICS are adopted by the relevant local government based on a schedule under the Sustainable Planning Regulation 2009, and do not form part of the planning scheme

Figure 1: Decision flowchart for PIP process



The role of the department

A PIP and ICS are part of a local government's planning scheme. Consequently the Department of Infrastructure and Planning (DIP) reviews draft PIPs and ICSs under SPA, its regulations and statutory guidelines (including obtaining advice from other state agencies) before making recommendations to the minister.

The review includes assessing the:

- priority infrastructure area (PIA)
- assumptions about residential and non-residential growth
- conversion of these assumptions into demand for infrastructure
- desired standards of service (DSS)
- trunk infrastructure required to service future growth.

DIP also provides general advice and guidance about infrastructure planning and funding under SPA, including the appropriate templates to use in preparing a PIP. Local governments proposing to prepare a PIP are encouraged to contact DIP to discuss the appropriate template for their circumstances.

Queensland Competition Authority (QCA) review

SPA also provides for the minister to seek advice from the Queensland Competition Authority (QCA) regarding any proposed ICS.

The QCA is an independent statutory authority established under the *Queensland Competition Authority Act 1997* (QCA Act) to provide independent, objective advice on pricing and access to services to guide Queensland's industries and government.

When reviewing an ICS, QCA refers to SPA and this guideline, and advises the minister on the appropriateness of the proposed establishment costs of trunk infrastructure in the ICS and the apportionment of those costs between users.

The assessment does not include other local charges, such as for ongoing services, and is also unsuitable for other QCA Act purposes, such as monopoly prices oversight or third-party access, which require a more precise and detailed assessment of costs and pricing practices.

Further details of the authority's role are outlined in the fact sheet—*Review of infrastructure charges schedules by the Queensland Competition Authority*—available from DIP.

General background

Integrated land use and infrastructure planning under SPA

Effective land use planning both informs, and is informed by, effective infrastructure planning. The location and density of urban development is a key influence on the cost and efficiency of infrastructure, and consequently to the cost of development to the community as a whole. Infrastructure is also a significant land use in its own right and its impacts require assessment through planning and development assessment processes.

SPA states that its purpose must be advanced, among other things, by:

- supplying infrastructure in a coordinated, efficient and orderly way, including encouraging urban development in areas where adequate infrastructure exists or can be provided efficiently.

SPA achieves this through integrated land use and infrastructure planning. Local government planning schemes are the key instruments for integrating national, state and local infrastructure priorities with growth management and land use policies in a local and spatial context. The processes for making planning schemes under SPA also facilitate integration by providing for state input at key points in the scheme making process to ensure its interests in providing infrastructure in the most efficient and effective way are reflected.

The key tool in a planning scheme for integrating land use and infrastructure planning is the PIP and to this extent it is intended that land use and infrastructure outcomes align.

Strategic planning context

Planning undertaken to develop a PIP is part of a broader strategic planning process for the planning scheme often involving an iteration of various land use and infrastructure planning scenarios. This strategic planning process will consider requirements to achieve population and density targets or patterns of urban form under a regional plan, and constraints such as significant environmental areas, key resource areas, flood affected land, unstable or steep land, viewsheds and areas of high amenity.

All of these factors will create a framework within which the medium and longer term infrastructure and land use planning in the PIP must be undertaken.

Infrastructure funding under SPA

Apart from promoting integrated land use and infrastructure planning under a PIP, SPA also establishes several equitable, transparent and accountable methods for funding infrastructure, such as infrastructure charges schedules and regulated infrastructure charges schedules.

However the options that a local government can consider for funding infrastructure identified in a planning scheme or PIP include but are not limited to rates, other charges and, borrowings. The optimum way of funding particular infrastructure in the community's interest will depend on a several factors, as discussed in Part 2 of this guideline.

Relationship with other SPA statutory guidelines

PIPs and ICSs are part of a local government's planning scheme.

SPA, Chapter 3, Part 5[3] requires planning schemes be made or amended under a statutory guideline.

SPA, Chapter 8, Part 1[4] states that, despite SPA Chapter 3, Part 5, PIPs and ICSs must be made or amended under a statutory guideline.

To the extent a statutory guideline mentioned in SPA Chapter 3 Part 5 applies for making or amending a planning scheme to include a PIP or an ICS, that statutory guideline is taken to be part of this guideline, and should be read together with this guideline.

[3] SPA—Section 117

[4] SPA—Sections 628 and 630

Part 1

1.1 Priority infrastructure plans

SPA[5] requires all planning schemes to include a priority infrastructure plan (PIP) and recognises its key role to integrate land use and infrastructure planning. It also provides a firm and transparent basis for critical decisions about infrastructure funding, including the calculation of any infrastructure charges.

PIPs deal with development infrastructure, most of which is provided by local government. However land use and sequencing patterns for development infrastructure also have a profound influence on the cost and efficiency of providing other local and state infrastructure such as community facilities, state controlled roads, schools and health facilities.

Consequently the state is an important partner in the development of each PIP. Rather than solely reflecting a 'least cost' path for providing development infrastructure, the PIP represents an 'optimum path' for providing a wider range of local and state infrastructure. In doing so it must also meet market needs and provide a range of residential and non-residential opportunities to satisfy the varying needs of the community.

Note: Indigenous local governments and Indigenous regional councils have relatively recently been incorporated as local governments under the *Local Government Act 2009* and many do not yet have planning schemes. As a PIP must be based in part on information under a local government's planning scheme, and so as not to delay preparation of planning schemes in Indigenous local government areas, Indigenous local governments and Indigenous regional councils need not include a PIP in their planning schemes when first made, and may amend their planning scheme later to include a PIP.

1.1.1 Infrastructure concepts

Development infrastructure
SPA defines and limits development infrastructure to networks providing basic essential services and facilities for safe, healthy and efficient functioning of local communities. Development infrastructure is land and/or works, for water cycle management (including water supply, sewerage and drainage), transport, parks and land for local community infrastructure.

Development infrastructure is either **trunk infrastructure** or **non-trunk infrastructure**.

Trunk infrastructure
Trunk infrastructure is 'higher order' development infrastructure planned, funded and provided by local governments and shared between developments.

A key consideration in identifying trunk infrastructure is that any infrastructure charge or regulated infrastructure charge may only be levied for trunk infrastructure identified in the PIP.

[5] SPA—Section 88

Non-trunk infrastructure
Non-trunk infrastructure is all development infrastructure not identified as trunk infrastructure in the PIP. This includes 'lower order' development infrastructure, for example internal to housing estates. SPA requires for such infrastructure to be supplied in other ways than through charging (see example Section 3.1.2—Charging and conditioning).

1.1.2 Main elements of the PIP

SPA[6] requires a PIP to include:

- estimates about future population and employment growth
- assumptions about the type, scale, location and timing of development
- the priority infrastructure area, in which infrastructure is planned and provided to service expected growth for at least 10, but not more than 15 years
- desired standards of service for each trunk infrastructure network
- plans for trunk infrastructure for each network to service existing and future development that meets the demands generated by the land uses defined in the planning scheme
- any infrastructure charges schedules.

1.2 Preparing the PIP

1.2.1 Format and content of the PIP

Local governments must use the templates included in this guideline when preparing a PIP.

Slower growing local governments that intend to not charge, or adopt a regulated infrastructure charges schedule (RICS) for all or some of their networks are to prepare a PIP based on the simplified Template 1 in Appendix 2 of this guideline.

Higher growth local governments that intend to either not charge, or those local governments intending to prepare a PIP with an infrastructure charges schedule (ICS), are to prepare the PIP using Template 2 in Appendix 3 of this guideline.

1.2.2 Priority infrastructure area

A priority infrastructure area (PIA) under SPA is the part of a local government's area intended to accommodate between 10 and 15 years' anticipated growth for urban purposes. SPA identifies these purposes as residential, retail, commercial, and industrial purposes, and any related community and government purposes. A local government also may include other areas serviced by development infrastructure in its PIA.

An important benefit of the PIA is to enable improved coordination and focus on the capital works programming of a local government and that of the state and to signal a development pattern that is efficient. It does not limit the planning of infrastructure to meet all of the demands of the planning scheme that may exist outside of the PIA, nor does it prohibit or constrain development.

Note: State agencies are consulted during the process of making or amending a planning scheme to include a PIP. While based primarily on development infrastructure, the PIA will also reflect a consensus between the local government and the state about the most cost effective and efficient locations for the supply of other local and state infrastructure.

[6] SPA—Schedule 10, definition 'priority infrastructure plan'

1.2.3 Sequencing development

The PIA shows a local government's intent to sequence the supply of trunk infrastructure to accommodate anticipated urban development over the next 10 to 15 years in the most efficient way.

The presence of a PIA does not limit local government to a 15 year trunk infrastructure planning horizon. The strategic element of the planning scheme should also incorporate longer term infrastructure planning that services the land use outcomes of the scheme, in particular for significant items such as large treatment plants, major roads and dams which are commonly provided by the local government along with those trunk items that are provided as part of development by industry. The PIP should be informed by this longer term strategic planning to achieve alignment of land use and servicing requirements.

The location and extent of the PIA and the PIPs planning assumptions must be negotiated and agreed with state infrastructure suppliers (for purposes of a PIP: infrastructure for state schools, public transport, state-controlled roads and emergency services) before the local government forwards the proposed PIP to DIP for state interest review.

1.2.4 Areas included within the PIA

The PIA:

- must in its location and extent be based on land identified as available for urban development (see Introduction—Strategic planning context) population and employment projections (see Section 1.2.6 below), and planning assumptions (Section 1.2.8)
- should reflect the combined extent of all trunk infrastructure networks to service 10 to 15 years growth, spatially separate PIAs for different types of infrastructure network would not reflect an integrated approach to infrastructure sequencing and land use planning
- may consist of a single area or multiple geographically discreet areas.

  Example: A PIA for a regional coastal local government may cover the major township, coastal villages and a rural hinterland township. A PIA for a rural local government experiencing little growth in most cases need only include the existing serviced development.

- must include all developed urban land provided with development infrastructure
- should exclude undeveloped future urban areas only needed to accommodate growth beyond 15 years
- may include rural residential areas serviced with trunk infrastructure, however there may be little utility in including such areas if they are only serviced by one or two networks
- must be defined having regard to:
  - the availability and capacity of existing local and state infrastructure networks
  - the expected infill and redevelopment potential of the existing serviced areas
  - existing development approvals.
- may include existing serviced areas with infill potential even if the anticipated development of those areas extends beyond 15 years. Local governments that have a large capacity for residential growth in an infill area are to nominate the rate and scope of growth that is expected in the infill areas so as to define what is realistically expected to be achieved in the areas of urban conversion.
- must not include areas for which the local government is unable to clearly state planning assumptions and anticipated demand
- must be an area in which the local government can clearly identify plans existing and future trunk infrastructure during the 10–15 year planning horizon.

1.2.5 The PIA and infrastructure agreements

The PIA:

- may include areas subject to existing infrastructure agreements[7], provided the agreements and related development approvals and planning scheme provisions contain sufficient information on which to base the assumptions and infrastructure planning, as for other areas in the PIA
- must exclude areas subject to infrastructure agreements if insufficient information exists on which to base the assumptions and infrastructure planning. Development of such areas will occur under the terms of the agreement, and the PIA should be reduced to reflect the anticipated proportion of growth for the 10–15 years that will occur under the agreement.

  Example: If a large project subject to an infrastructure agreement is expected to accommodate half of the anticipated growth in the local government area over the next 15 years, the priority infrastructure area would only need to identify sufficient land for the other half of the growth anticipated to occur over this period (i.e. sufficient land for seven or eight years growth rather than the 10 to 15 years required under the Act).

Note: To the extent an infrastructure agreement is inconsistent with a development approval or an infrastructure charges notice (or a regulated infrastructure charges notice), the agreement prevails (see SPA 665). Whether the PIA includes the area subject to the infrastructure agreement or not, the PIP must state and map how any infrastructure agreement areas have been dealt with.

Master planned areas

SPA[8] provides for the minister to declare master planned areas, for which local governments must prepare structure plans, and in which master planning applications may be made. Such areas may be subject to local infrastructure agreements (see SPA Section 143). Master planned area declarations may be made at any time, independently of normal planning scheme review cycles, or the process for making PIPs. If a master planned area is declared when the process of making or reviewing or amending a PIP is substantially underway, the local government may continue to prepare the PIP without accounting for the master planned area declaration, and may reflect the declaration in a later revision of its PIP. This ensures the process for making PIPs is not unduly delayed by the need to accommodate the declaration.

1.2.6 Population and employment growth projections

For the purposes of the PIP, the extent and rate of anticipated yearly growth in population and employment should be estimated, for a minimum of 15 years. Australian Bureau of Statistics census data forms the basis for these projections.

The Planning Information Forecasting Unit in Queensland Treasury provides information to assist in developing growth projections, such as existing resident populations, existing dwellings by type, occupancy rates and inter-census growth projections.

Growth projections should be sufficiently detailed to allow different aggregations of data to match service catchments for different infrastructure networks.

[7] SPA—Sections 660–665 and 840

[8] SPA—Section 132

The population and employment projections inform predictions about the average future rate of growth for a local government area. Local governments are best able to apply local knowledge to census data to determine how this rate may vary from one area to the next. These growth projections provide the basis to determine when infrastructure should be provided to service future development.

Local governments should use both statistical information and local knowledge to identify one or more areas (**projection areas**) in which to undertake population and employment growth projections. The number, location and size of projection areas will depend on the population, settlement patterns and growth rates of for the local government area.

Example: coastal villages, an inland administrative centre, and several rural settlements in a single local government area are each likely to exhibit substantially different population and employment growth profiles, so should be allocated different projection areas. A small rural local government area with a single town centre and static rural population will only require one projection area.

For population and housing, the following should be identified for each projection area:

- **location**—the identified projection areas (suburb, locality, statistical area)
- **existing and projected population**—For the existing population, the official estimated resident population figures may be used with adjustments to account for significant holiday population and growth since the data were collected, or to take account of boundary differences. The state's planning and forecasting unit provides information and assists with information in this regard.
- **occupancy rates**—An estimate of average numbers of persons per occupied dwelling is required to enable estimates of the total number of new dwellings required (projected population divided by occupancy rate). Occupancy rates must be specified according to dwelling type.
- **existing and projected dwelling units for each type**—Existing dwelling units are the number of existing dwellings of different types in the area. This information is available through census data, but should be updated to account for growth since the data was collected. Other sources of information include local knowledge, research and local government's data bases such as rates that include information on existing property and dwellings. Projected dwelling units are the number of units required to accommodate the area's projected population at the assumed occupancy rates.

For employment, the following should be identified for each projection area:

- **location**—the identified projection areas (suburb, locality or statistical area)
- **use**—a simple categorisation to convey the type and scale of employment generating activities in the projection areas
- **existing and projected employment**—The number of persons currently employed can be obtained from special census tables, local knowledge, research and surveys. Projections of future employment may not be precise, but should broadly indicate for each use the employment growth likely to occur for each category of use.
- **conversion rate**—The rate at which additional land or floorspace for each category is provided, usually expressed as square metres of floorspace and hectares of land per hundred or thousand employees. Again, this may not be precise, but indicates the area of service catchment and extent of trunk infrastructure required to service these functions.
- **assumed growth for each type of employment related use**—The employment projections and conversion rates are used to estimate the additional floor space and land (expressed in square metres and hectares) required to service the projection area. This estimate should be based on the same projection periods for residential growth. Floor space is a reasonable growth measure as it determines traffic generation and other 'demands' on infrastructure. Land, floor area and employment are all correlated. The ratio of floor area to land area varies for different use

categories so the land area associated with the projected floor space requirements should also be accounted for.

1.2.7 Service catchments

Trunk infrastructure planning and charging are based on service catchments. The demarcation of service catchments depends on the nature of the infrastructure. The cost to provide infrastructure also varies from catchment to catchment depending on factors such as soil type or distance from existing infrastructure. The demand and associated costs for a service catchment are inputs to the calculation of costs per demand unit. Accordingly, when preparing the PIP, a series of different service catchments have to be identified for each of the infrastructure networks within the context and role of the PIA.

Service catchment boundaries will be defined by the network type and how it has been designed to operate and provide service to the urban areas. On this basis it generally has some alignment to the land use boundaries of the planning scheme but very little relevance to any other administrative boundary such as a PIA. The service catchments must cover all of the urban areas of a planning scheme at a minimum and in doing so covers the PIA.

1.2.8 Planning assumptions

The planning assumptions are critical elements underpinning the PIP. Their purpose is to provide a logical and consistent basis for the detailed infrastructure planning within network catchments. Together with the desired standards of service they assist in the development of the plans for trunk infrastructure, and form the basis for the calculation of infrastructure charges and on which to base additional infrastructure cost assessments.

The PIP states the assumptions about the:

- type
- scale
- location
- timing of future development.

Assumptions about the type and scale of development are derived from the zoning maps and associated codes of the planning scheme.

The demarcation of the PIA determines the assumption about the location and prioritisation of development.

The population and employment projections form the basis to predict the average future rate of growth for a local government. Based on local knowledge, local governments are best able to determine how this rate may vary from one local geographical area or catchment to the next. These growth projections provide the basis to determine when infrastructure should be provided to service future development.

1.2.9 Planning for ultimate development

Local government bases the capacity and design of its trunk infrastructure networks on the estimated demand when lots or areas will be fully developed (ultimate demand).

Infrastructure should be planned for the realistic total development that can be achieved in terms of the type and scale of uses allowed by the planning scheme, for each catchment of an infrastructure network. For those catchments generally located within the PIA, ultimate development should be

achieved within the 10–15 year period of the PIA or relatively close to that. Infill areas or areas where redevelopment occurs may take longer to reach ultimate development.

An important factor to consider is the achievement of aspirational planning outcomes through the development process. Some planning schemes allow for high densities which would feasible in 50 to 60 years but are beyond the possibilities of the initial urbanisation of the land. Careful consideration of both demand and infrastructure in these areas is necessary to ensure that a fair representation of demand is made reflecting the market possibilities and opportunities for servicing are not lost to achieve the aspirational planning target later in the development cycle.

It is not always practicable to achieve the potential (theoretical) scale of development shown within the planning scheme. This can be due to a range of physical constraints including slope, environmental (i.e. significant vegetation), flooding, existing infrastructure etc (much of this information will be provided in planning scheme overlays). Other requirements of the planning scheme such as setbacks, height and car parking will also impact upon the scale of development that can realistically be achieved on premises.

Planning for realistic total development will mean that there is less likelihood of an oversupply of trunk infrastructure (and associated charges) under the PIP.

Also see Section 3.5.1 where long term planning and other factors impacting on charges are discussed.

Ultimate development can be described as the stage when an area or a lot is fully developed. It should be acknowledged however that cities are dynamic and redevelopment and intensification of development occurs continuously. For example, a central business district will be different from 20 years ago, even though at that time it may have been described as being intensely developed. This concept is made more complex because both stages could have been described as ultimate demand.

From an efficiency point of view it is in local governments' interest to plan and provide capacity to service development over the longer term. The issue is whether this planning horizon should be 20, 50, 100 or even 200 years into the future. The further planners look into the future, the more uncertain assumptions and future plans become. For example, unforeseen changes in car use and transportation patterns may impact on future infrastructure plans and cost calculations.

Planning for the longer term should be encouraged but this must be balanced to consider negative cost impacts. The methods to calculate charge rates are described in Section 3.4.5 which in general terms is total cost of infrastructure divided by total demand (at ultimate development). A consideration for local government is whether planning for 40 years into the future would have a negative impact on the cost per demand unit that is charged for a development compared to limiting planning and infrastructure charges for 20 years into the future.

Where providing greater capacity for the longer term, local government infrastructure planners should take care not to allocate spare capacity of infrastructure to users over and above their need as this will also lead to an unfair increase in the charge rate.

The objective should be to find an appropriate balance and ensure that infrastructure charges/costs to developers and the community are kept within reasonable limits.

1.2.10 Assessment against assumptions

Development applications for individual lots will be assessed against the PIP to consider whether they are consistent with the identified assumptions. Information on the assumptions and planned demand must be structured in such a way that in practice it facilitates an easy assessment of development applications on a lot by lot basis. This is particularly relevant to local governments experiencing development pressures. It is highly recommended that local government use a Geographical Information System to capture the relevant data (including growth and planning assumptions, demand units planned for) to achieve this.

1.2.11 Converting assumptions into demand

Detailed planning for each infrastructure network will usually be based on units of demand specific to the network.

For each type of lot or use, the demand units are derived from the planning assumptions about the type and scale of development. The population, housing and employment projections identify how demand will grow over time up to ultimate development for each catchment. It is therefore necessary to convert these into appropriate units of demand for the service catchments of each infrastructure network.

Infrastructure demand for residential and non-residential uses can be expressed as standard demand units for each infrastructure network similar to the following:

- water and sewerage—demand generated per equivalent person (EP) or equivalent tenement (ET) per day
- transport—number of trips generated per day
- stormwater quantity—impervious area per hectare
- parks—number of people.

These demand units may be expressed as a number per dwelling, per hectare of developable land for a use, or per floor area for non-residential uses. For residential uses, household sizes are important to determine the assumed demand. For non-residential uses, the number of job opportunities and the type of existing or anticipated use helps determine the assumed demand.

Demand units quantify behaviour and therefore use of infrastructure to allow for planning and ultimately to determine charging.

For example, behaviour around water use in SEQ changed as a result of the drought reducing demand from 300–400 litres per person per day to 18 litres per person per day. The rise in fuel prices by 30–40 cents per litre also triggered an almost overnight increase in the use of bus and train services in SEQ.

Determination of demand rates must be reflective of how development and communities use the networks and to this extent changes in behaviours must be modelled along with the factors that influence them such as climate change, rising costs, convenience etc. This approach will ensure more accurate planning and design of networks and create more fair and equitable charges.

1.2.12 Desired standards of service (DSS)

The PIP must state desired standard of service (DSS) for each infrastructure network. The DSS is supported by the more detailed network design standards included in planning scheme policies. The DSS, planning scheme policies and any related planning scheme codes should be aligned as the PIP and/or planning scheme are prepared or amended. The PIP and planning scheme should clarify how the DSS and design standards apply to the respective trunk and non-trunk infrastructure networks.

Local government, in consultation with the community, should determine realistic and affordable standards of service for development infrastructure. This should be reflected in the desired standards of service for each network and will be based on a range of factors including regulatory requirements, cost, affordability, and anticipated environmental, economic and social outcomes.

DSS must reflect a balance between community expectations, affordability and the efficient provision of infrastructure. The DSS may differ vary within a network or between service catchments.

Example: water supply pressure and volume standards may differ for different catchments. Road widths and construction standards in an industrial area will be different from those for a residential area.

In many instances the DSS will simply involve stating the implicit assumptions and standards that have been the basis for the local government's infrastructure planning and supply.

The templates in Appendices 2 and 3 to this guideline include examples of DSS for different networks.

1.2.13 Plans for trunk infrastructure (PFTI)

The plans for trunk infrastructure (PFTI) must identify the existing and future trunk infrastructure necessary to service each network service catchment in the PIA up to ultimate development.

The service catchment boundaries for an infrastructure network are unlikely to align precisely with the priority infrastructure area boundary or the service catchments for the other development infrastructure networks. Therefore, the local government may prepare infrastructure plans for the entire service catchment even if this extends beyond the priority infrastructure area boundary. Although the PIA is the primary focus for the planning and provision of trunk infrastructure, this does not prevent local government from planning and providing trunk infrastructure for urban land uses outside of the PIA.

The design of the trunk infrastructure is based on the expected growth in population and employment as well as the assumptions about type, scale, location and timing of development. The planned (ultimate) demand for each network service catchment, together with the DSS determines the extent of the infrastructure to be provided.

The PFTI for a given infrastructure network must consist of a map or maps with the single purpose of identifying the existing and future infrastructure for each network. This should show the major elements of the network that are cross-referenced to a schedule of works which includes the following information:

- a corresponding reference for the network element and/or item shown on the map
- a brief description of the element and/or items that make up the element
- whether the element is existing, or if new, the estimated date of when the element or item will be provided

- for local governments not intending to levy charges, the estimated timing of construction can be expressed in terms of specific years or 'time bands' (e.g. 2011–2016).

The templates included in Appendices 2 and 3 of this guideline provide further direction on how PFTI, associated schedules of works and extrinsic (supporting) material will be structured for slower and higher growth local governments respectively. The local government's capital works program must reflect the PFTI and associated schedules of works to provide future trunk infrastructure. The SPA[9] makes provision for a local government to supply different trunk infrastructure from that identified, provided the infrastructure supplied delivers the same standard of service for the network. If a local government chooses to supply different infrastructure from that identified in the PIP, it must add information to the infrastructure charges register and extrinsic material to record, explain and justify the decision.

Public parks and PFTI

SPA[10] prevents local governments imposing a condition about a monetary contribution for non-trunk infrastructure. It is therefore recommended that local government identify all public parks and land for community infrastructure, which forms part of its parks provision strategy, as trunk infrastructure in its PFTI.

Future parks can be identified either as a designated, or an approximate location. In each case the standards such as the park type, size and associated embellishments needs to be clearly identified in the PIP.

PFTI and state infrastructure

As the state does not generally supply trunk infrastructure, plans for state infrastructure will not usually be included in the PIP, however, state infrastructure providers will use PIPS to guide their own infrastructure planning.

State controlled roads often form an important part of local road networks. These roads may serve both local and broader functions. Template 2 in Appendix 3 provides for information about these roads to be included as a separate item in the transport PFTI.

For future infrastructure, the PIP may refer to statements of intent (SOIs) for the state-controlled road network. However, where a PIP includes a transport ICS that includes local function charges for a state-controlled road, all future works where local function charges are planned to be spent, must be listed along with the timing of construction as well as the proportion of total costs of works to be funded by the local function charge. Further requirements are described in Part 3 Infrastructure charges schedules.

[9] SPA—Section 638

[10] SPA—Section 626

Part 2—Funding

2.1 Infrastructure funding

2.1.1 Funding options

There is no requirement on a local government to levy infrastructure charges on development through its PIP. Funding options under SPA are **not comprehensive**, and **do not necessarily represent preferred approaches** to funding trunk infrastructure identified in a PIP. In deciding whether to use funding arrangements under SPA, local governments should carefully consider the available alternatives, such as:

- rating, benefited area arrangements and utility charging
- funding through state and national grants and funding programs
- financing options.

Moreover, if charging under SPA is used, SPA does not require particular trunk infrastructure to be funded exclusively from charges. Local governments opting to use ICSs or RICs under SPA may decide to fund only a proportion of the relevant trunk infrastructure this way.[11] Local governments are encouraged to consider funding mixes which best suit the needs of their communities.

In addition, SPA allows local governments to choose between charging for planned or approved demand, or to choose not to levy the full charge in respect of particular development[12].

Factors which local governments should take into account in deciding which funding arrangements to use include:

- funding arrangements for current infrastructure assets, including the proportion of the establishment cost of infrastructure previously recovered through charges
- the size and growth rate of the local government's population
- the time and cost associated with preparing and administering ICSs and RICs in relation to the level of development activity
- the nature and extent of anticipated development, for example the balance of development in 'greenfield' and 'brownfield' localities
- the degree of leveraging for current infrastructure assets and likely differential between the cost of capital for the local government and that available to the development industry and the community generally
- the likely impact of charging on housing affordability and non-residential development in the local government area.

[11] SPA, Section 631 requires this proportion to be stated in the infrastructure charges schedule.

[12] See Part 3, Sections 3.5.1 and 3.5.5.

2.1.2 Funding under ICSs and RICs.

ICSs
Infrastructure charges may be levied by councils to fund a proportion of the establishment costs associated with providing trunk infrastructure. A PIP with an ICS will:

- provide a transparent account of the establishment cost of the trunk infrastructure
- indicate when new trunk infrastructure is likely to be provided
- quantify demand generated by existing and future infrastructure users
- show how demand and costs will be apportioned to users through the calculation of charge rates
- state the infrastructure charge rates by charge area for each network
- show how the infrastructure charge levied on premises will be calculated.

RICSs
RICSs are available to all local governments, but are particularly suited to smaller, slower growing local governments with smaller populations. They allow local governments to apply (conservatively valued) infrastructure charges without having to prepare ICSs.

A local government may adopt a RICS by resolution up to, and including, the maximum amounts set out in the regulation to SPA. The regulation sets out conversion rates for applying the charges for different types of development and use.

For adopting a RICS, SPA requires:

- the local government must have a PIP
- the local government may only adopt regulated charges for trunk infrastructure networks identified in the PIP (i.e. the local government must have PFTI for the network being charged for).

Each local government adopting a RICS must set the charge at a level appropriate for its individual circumstances.

> **Note:** Unlike a PIP or ICS, a RICS is not part of a planning scheme. A RICS is adopted by resolution of the local government. SPA (Section 724) requires the local government's RICS to be available for public inspection and purchase along with its other planning related documents.

Combining ICSs and RICSs
Local governments also may use both an ICS and RICS for the same infrastructure network, provided charge areas or service areas do not overlap.

Example: A local government may have sufficient PFTI to prepare an ICS for one catchment, but have only sufficient trunk infrastructure plans for remaining catchments to support a RICS. Local government should clearly demonstrate that no double dipping occurs.

Part 3—Infrastructure charges schedules

3.1 Introduction

3.1.1 Infrastructure charging principles

SPA infrastructure charging is based on the following principles to ensure transparency, equity and efficiency:

- charges are limited to infrastructure that provides direct, private benefits to users
- charges are limited to basic essential services/facilities where consumer choice is limited due to:
  - health and safety reasons or
  - compelling savings in long-term provision costs.
- charges are based on the PFTI
- infrastructure is designed to satisfy reasonable desired standards of service and construction standards that minimise the whole-of-life costs of the infrastructure
- infrastructure costs must be apportioned equitably among all infrastructure users.

3.1.2 Charging and conditioning

Under legislation preceding both SPA and the *Integrated Planning Act 1997* (IPA), infrastructure was funded through conditions imposed on development approvals. However conditioning compromises transparency, equity and accountability, as it cannot clearly distinguish between the cost of the service and the cost of its impacts.

SPA clearly distinguishes between the cost of the service and the cost of its impacts by:

- clearly integrating land use and infrastructure planning to establish a benchmark for efficient and effective infrastructure provision
- funding the capital cost of the infrastructure mainly through a separate and accountable charging process
- confining conditioning to mitigating the impacts of unforseen or 'out-of-sequence' development.

There is a clear distinction between charging and conditioning. SPA allows conditions for directly providing infrastructure in limited circumstances, mainly reflecting practical considerations. These are:

- for non-trunk infrastructure (see SPA Section 626)
- for necessary (identified) trunk infrastructure (see SPA Section 649)
- for additional trunk infrastructure costs (see SPA Section 650)
- for additional trunk infrastructure costs for development inside priority infrastructure areas (see SPA Section 651)
- for additional trunk infrastructure costs for development partially or wholly outside priority infrastructure areas (see SPA Section 652)
- for conditions state infrastructure providers may impose for state infrastructure (see SPA Sections 653 to 657).

Template 2 included in Appendix 3 of this guideline outlines how these rules about conditions are applied under a PIP.

3.2 Establishment costs

3.2.1 What are establishment costs?

SPA identifies establishment costs for a trunk infrastructure network as:

- the cost of preparing an ICS, including the DSS and PTFI
- on-going administration costs for the infrastructure charges schedule
- for future infrastructure—all design, financing, land acquisition and construction costs
- for existing infrastructure:
  - the cost of reconstructing the same works using contemporary materials, techniques and technologies
  - for land acquisitions completed after 1 January 1990—the value of the land at the time it was acquired, adjusted for inflation.

An infrastructure charge may only be levied for the establishment cost of trunk infrastructure identified in the PIP.

3.2.2 Calculating establishment costs

The following apply when calculating establishment costs:

- Ongoing administration costs are the costs associated with preparing, maintaining and administering ICSs, such as updating charges schedules, maintaining the infrastructure charges register and issuing charge notices. These also include costs associated with preparing and maintaining plans for trunk infrastructure and determining the desired standards of services.
- The costs of preparing and administering PIPs and ICSs as described above, must not exceed two per cent of the infrastructure costs included in the charge rate unless first justified and approved by the department. Template 2 at Appendix 3 provides further detail on methodology and format.
- Land acquisition costs are the costs of acquiring land for trunk infrastructure. This must not include land gifted to local government but may include land contributed in lieu of a charge or as a condition of development approval as previously allowed prior to adoption of a PIP.
- For calculating the current value of previously purchased land, the original purchase price is to be indexed using the Consumer Price Index (all groups, City of Brisbane or weighted average). For future land acquisition values, other indices can be used or developed in accordance with these guidelines.
- Design and construction costs must be estimated based on standards that the local government would apply if it were constructing the infrastructure itself. In applying these standards, the local government should minimise the whole-of-life costs of supplying the infrastructure.
- The existing network must be valued at current cost. This assumes that appropriate asset maintenance and replacement programs are in place and that the network is in 'as new' condition, having been kept that way by ongoing funding from business activity charges or local government rates. It follows that infrastructure charges must not be levied for the cost of works if they are required to rehabilitate, maintain or replace aged or obsolete components of the trunk infrastructure network. Where additional capacity is being provided as part of the rehabilitation, only the cost of that additional capacity may be funded through infrastructure charges.

3.2.3 Standard infrastructure inclusions and exclusions

The standard inclusions and exclusions for trunk infrastructure charges table at Appendix 1 provides mandatory provisions on what infrastructure may be included in the calculation of the charge rate.

3.2.4 Proportion of establishment cost funded by charges

Infrastructure charges fund a proportion of the establishment costs associated with providing trunk infrastructure.

The following apply when estimating the proportion of the establishment cost to be funded by an infrastructure charge:

- The costs associated with infrastructure demand consumed by external users must not be transferred to other users via infrastructure charges. These funds must be sourced from revenue other than infrastructure charges levied under a PIP.
- For local government infrastructure the value of gifts, grants and subsidies received from the state or federal government to fund trunk infrastructure, must be excluded from the calculation of the charge rate. This include the value of infrastructure that has already been funded from state or federal taxes.
- Grants and subsidies received by local government, or known to be receivable in the future at the time the ICS was made, must be removed from the calculation of charge rates.
- The value of infrastructure being recovered through recurrent revenue such as local government rates or toll revenue must be removed from the proportion of the establishment cost funded by charges.
- The trunk infrastructure included in the calculation of the charge rate must provide direct services to those urban land uses identified in the SPA definition of a priority infrastructure area.
- Attachment 1 further identifies what infrastructure can be charged for and what infrastructure can not be charged for.

SPA[13] requires the local government to identify in the ICS the proportion of the establishment cost it intends to recover through infrastructure charges.

It is important for local governments to consider the difference between new charges prepared under a PIP and that previously levied on development. Local governments may choose to recover a smaller proportion of the establishment cost through infrastructure charges. Where this is the case, the shortfall must be funded through other sources of revenue such as local government rates.

3.2.5 Phasing in charges

If a local government finds new charges under an ICS are significantly higher than previously levied on development, it may choose to follow a strategy to phase in the charges over a period of time to limit impacts.

3.2.6 Area in which charge applies

Infrastructure charges may apply to all or part of a local government area. The area covered by a charge will depend on the extent to which the local government area is serviced by trunk infrastructure and the cost recovery objectives of the local government. SPA[14] requires the ICS to identify the area in which a charge applies.

[13] SPA—Section 631(b)

[14] SPA—Section 631(c)

3.3 Infrastructure charges

An ICS must state the types of lots or uses in the charge area (e.g. residential, commercial, industrial) that are liable for infrastructure charges, and how the charge must be calculated for each type. A detailed explanation and background on the calculation of the various charge rates must be included in the supporting (extrinsic) material.

3.3.1 Demand units

An ICS in combination with the PIP must identify the standard demand units for the various infrastructure types and provide equivalence tables that show how many demand units are expected to be generated by each lot or use type.

Infrastructure demand for residential and non-residential uses should be expressed using demand units such as:

- water and sewerage—demand generated per equivalent person (EP) or equivalent tenement (ET) per day
- transport—number of trips generated per day
- stormwater quantity—impervious area per hectare
- public parks and land for community facilities—number of people.

Appendix 3 (Template 2) includes an example of an equivalence table (demand generation rates). These are expressed as a number of demand units per dwelling, per hectare of developable land, per floor area for non-residential uses or other relevant measure.

3.3.2 Infrastructure charge rate

The charge (rate) for each infrastructure network in each charge area must be stated in the ICS as a monetary amount per demand unit (e.g. cost per EP), with the value determined in the base year. For more information and two alternative approaches to calculating the charge rate, see Section 3.4.4 below.

Note: The chargeable rate of provision for land for public parks and community purposes is limited to a maximum of 4.8 hectares per 1000 people per charge area. The 4.8 hectares must be a proportional representation of all parks and land for community purposes identified in the plans for trunk infrastructure. Local government may plan for and provide more land where it is funded from sources other than infrastructure charges levied under a PIP.

3.3.3 Adjusting charge rates for inflation

SPA[15] allows for charge rates under an ICS to be indexed for inflation. If an ICS provides for adjustment of charge rates for inflation, the ICS must state the method for indexing the charge (rate) and the indices used to set the increased amounts for the charge rates. Local government can regularly apply relevant indices to the value of the charge rates to account for inflation. Current and previous charge rates must be identified in local government's infrastructure charges register.

[15] SPA—Section 631(3)

3.4 Apportioning costs

3.4.1 Fair apportionment of infrastructure costs

An infrastructure charge for premises must not be more than the proportion of the establishment cost of the trunk infrastructure network (identified in the PIP) reasonably attributable to the premises taking into account:

- the usage of the infrastructure network by the premises
- the capacity of the network allocated to the premises. This may occur if, unavoidably, more capacity must be provided than demanded, and apportioning by estimated use would result in under-recovery of costs. Capacity may only be apportioned in this manner if there is no prospect of it ever being utilized by additional users longer term.

The costs of trunk infrastructure networks must be shared equitably among all users who will benefit from the infrastructure. This ensures that users collectively contribute to the establishment cost of trunk infrastructure and development that triggers provision of additional capacity are not required to pay more than their share.

Where providing greater capacity for the longer term, local government infrastructure planners should take care not to allocate spare capacity of infrastructure to users over and above their need as this might lead to an inappropriate increase in the charge rate (also see Section 1.2.8).

If local governments choose to plan for infrastructure over the longer term, they should be able to demonstrate that this does not result in increased charges or charge rates per demand unit being levied on development when compared to shorter planning time frames such as the PIA time frames of 10 to 15 years or possibly 20 years into the future.

3.4.2 Charge areas

Infrastructure charges reflect the estimated benefit a user derives from a trunk infrastructure network. Each user will in reality derive different benefits, however quantifying individual benefits would clearly be impractical. Hence, benefits can best be expressed by grouping users into **charge areas** in which the costs of providing infrastructure to users are similar.

Network service catchments is an appropriate basis for defining charge areas, however the cost of administering many charge areas must be balanced against the equitable grouping of costs. Too many charge areas will result in cumbersome and costly administration, while too few create the risk of significant cross-subsidies.

Consequently service catchments may be combined to form charge areas. The following limits on the number of charge areas per network apply unless otherwise justified to, and approved by DIP:

- For urban areas with an ultimate planned population less than 100 000, the maximum number of charge areas per network should be ten.
- For urban areas with an ultimate planned population of between 100 000 and 200 000, one additional charge area may be added for each 12 500 of the population or part thereof beyond 100 000.
- For urban areas with an ultimate planned population in excess of 200 000, one charge area may be added for each increase in population of 20 000 or part thereof.

Where combining service catchments to form one charge area, a guiding principle should be to combine areas of similar cost to reflect an appropriate apportionment of cost.

Charge areas may extend across all or part of a local government's area, depending on the extent of the area serviced by the infrastructure network. Hence an infrastructure charge may also apply to areas outside the PIA.

3.4.3 Open and closed networks

Open networks
Open networks have some external users that cannot be levied an infrastructure charge. Most transport and community land networks are open networks.

The proportion of external usage must be accounted for when calculating charge rates for open networks to ensure external usage costs are not transferred to internal users.

Closed networks
Closed networks serve a clearly definable area with users who have full access to the service. Others cannot usually access the network. Full costs can be equitably apportioned to users of such networks. Water supply, sewerage and stormwater systems are typical closed networks.

Trunk infrastructure networks servicing discrete neighbourhoods, such as local parks or land for neighbourhood facilities, may also be closed networks because external use, though possible, is likely to be insignificant.

3.4.4 Steps for apportioning cost

The following steps must be followed for each trunk infrastructure network to ensure that establishment costs are apportioned appropriately:

- define charge areas based on catchments or aggregation of catchments serviced by the infrastructure network
- establish the existing demand and estimate the future demand for each charge area over time up to ultimate development for the lots and user groups expressed in the relevant demand units
- identify and value existing and future trunk infrastructure items that will provide the desired standards of service, including all other establishment costs allowed under IPA
- identify whether infrastructure and related costs are directly attributable (used only by one charge area or one user group) or common (used by more than one charge area or user group):
  - allocate directly attributable costs to corresponding catchments and/or user groups
  - allocate common costs to charge areas and/or user groups based on their respective share of common demand.
- Calculate the infrastructure charge rates for each charge area using either the **average cost calculation methodology**, or the **incremental cost calculation methodology** set out below:

Average cost calculation methodology

Infrastructure charge rate ($/demand unit) =

$$\frac{\text{Establishment cost of existing infrastructure + NPV of future infrastructure}}{\text{Existing demand + NPV of future demand}}$$

Incremental cost calculation methodology

Infrastructure charge rate ($/demand unit) =

$$\frac{\text{Est. cost of spare capacity of existing infrastructure + NPV of future infrastructure}}{\text{NPV of future demand}}$$

The average cost calculation methodology averages costs across existing and future users based on the total cost of the network. This is an easier method to use and maintain, if those costs are likely to vary between existing and future infrastructure costs.

The incremental charge rate methodology is likely to be more accurate, but is more complex and resource intensive, as it requires re-assessment of spare capacity and re-allocation of establishment costs each time the PIP is updated.

3.4.5 Discounted cash flow

A discounted cash-flow methodology must be used to calculate an infrastructure charge rate.

The discount rate used should fall within the ranges set by DIP in its *Local Government Bulletin Update on National Competition Policy Issues 06/01*. (Refer to the table on Page 3 of the Bulletin set out in **rate of return** below). The indicative premiums to the ten year bond rate that applies in the base year nominated by the local government for assessment of its ICS should be used in establishing the discount rate.

The bulletin indicates local governments can use their own analyses to estimate appropriate, alternative capital structures and/or rates of return on capital. If a local government chooses to apply alternative rates, they must be approved by the QCA.

Rate of return

Small- to medium-sized businesses

The bulletin suggests that for small to medium businesses the rate of return on assets may be taken to be 3.5 per cent over the ten year bond rate.

Larger businesses

The guide suggests that, for larger businesses, councils should determine the rate of return on assets using the Weighted Average Cost of Capital and the Capital Asset Pricing Models. The bulletin suggests the following asset betas and post tax nominal premiums to be added to the ten year bond rate (per cent).

Business activity	Asset betas	Post tax nominal premium to ten year bond rate (per cent)
Water and sewerage	0.35 to 0.45	2.1 to 2.7
Refuse management	0.39 to 0.49	2.3 to 2.9
Plant and equipment hire	0.40 to 0.51	2.4 to 3.0
Road construction and maintenance	0.42 to 0.52	2.5 to 3.1
Cultural/Recreation/Leisure	0.45 to 0.55	2.7 to 3.3

Source: *Local Government Bulletin Update on National Competition Policy Issues 06/01*

3.4.6 Double dipping

When a local government calculates a charge rate, or levies an infrastructure charge, it must not double-dip. This ensures the costs for each benefit are only recovered once for a particular use.

Example: A stormwater drain already accounted for in the road network, should not be included again in costs for the stormwater network.

If the cost of infrastructure has already been recovered through state or federal taxes, infrastructure charges must not be levied to recover the same cost.

3.5 Calculating the charge

The calculation of charges is outlined in the templates in Appendix 2 and Appendix 3.

3.5.1 Planned demand and approved demand

Under the PIP's assumptions, the capacity and design of each trunk infrastructure network are based on estimated demand when premises in the charge area are fully developed ('ultimate demand'). Planning for ultimate demand is discussed in greater detail under Section 1.2.8.

SPA[16] allows local governments to choose whether to charge for planned demand or approved demand. This also allows local governments to charge for the greater of planned or approved demand. Planned demand is the level of demand assumed by local government when the PIP is prepared. Approved demand is the level of demand applied for by a developer and approved by local government under a development application once the PIP is implemented. Charging for the planned level of demand becomes an issue for developers if the approved level of demand is significantly less than the planned level of demand. Under this situation developers may be required to pay for demand beyond what will be consumed by their development.

An important factor that impacts on the level of planned demand is the planning horizon used for determining ultimate development. The longer the planning horizon used for ultimate development, the greater the extent of ultimate development can be expected to be (also see Section 1.2.8) and therefore the greater the level of planned demand will be. If local governments choose to charge for planned demand where the demand approved under a development application is less, and the planned demand was based on say a 40 year ultimate development horizon, it will most probably be more than if the planned demand was based on a 15 or 20 year ultimate development horizon.

The planned level of demand based on a 40 year ultimate development horizon can be expected to be greater than if it were based on a 20 year ultimate development horizon. This will result in different charges if a local government chooses to charge for planned where approved demand is less than planned demand.

As development occurs over time, it should match the PIP growth predictions up to the point when ultimate development is achieved and costs are recovered. Although it is unlikely that development on individual lots will accurately match the growth predictions, it should average out over larger areas. Development progress should be monitored and the necessary adjustments made when the PIP is reviewed.

[16] SPA —Section 651

Template 2 provides alternative methods for calculating a charge based on planned, or actual demand.

Where approved demand exceeds planned demand, SPA provides for the local government to impose conditions on any development approval to recover the additional costs arising from the departure[17]. The templates in Appendices 2 and 3 provide guidance about the calculation of additional costs.

3.5.2 Credits

When calculating an infrastructure charge for premises, any demand associated with the existing lawful use of the premises must receive a credit.

Example: a development application to replace an existing detached dwelling with two detached dwellings on an existing serviced premises must be given a credit for the demand generated by the existing dwelling. The charge to be paid would then reflect only the additional demand generated by the extra dwelling.

Also, where the use of serviced residential land has not commenced, the land must be taken to have a lawful use for a single detached dwelling for the purpose of calculating credits.

A local government must account for the number of credits granted in the same way it accounts for charges levied. The credits should be expressed as a number of demand units—for example, EPs, ETs or trips, and recorded in the infrastructure charges register and adjusted for inflation (the same as charge rates).

3.5.3 Offsets

SPA[18] allows a local government to impose conditions for necessary trunk infrastructure identified in the PIP.

Where a condition is imposed that requires the supply of necessary trunk infrastructure, the value of the infrastructure is to be converted into a number of demand units and offset against the infrastructure charges.

If the value of the infrastructure provided by the developer is more than the infrastructure charge, the local government must refund the difference to the developer on terms agreed with the infrastructure provider—for example, through an infrastructure agreement.

3.5.4 Providing infrastructure instead of paying a charge

A local government and applicant may agree in writing to provide trunk infrastructure (land and/or works) in lieu of a charge)[19]. The agreement must:

- specify the value of the infrastructure provided within each network by the applicant
- for each network, convert the value of the infrastructure into a demand units, and offset it against the infrastructure charge levied for that development
- if the value of the infrastructure under the agreement is less than the infrastructure charge, require the balance to be paid as an infrastructure charge
- if the value of the infrastructure under the agreement is more than the infrastructure charge, provide for the balance to be refunded as development proceeds.

[17] SPA—Chapter 8, Part 1, Division 7

[18] SPA—Section 649

[19] SPA—Section 637

3.5.5 Subsidies for particular lots or uses

SPA[20] states an infrastructure charge **must not be more than** the proportion of the establishment cost of the network reasonably attributable to the relevant premises. This means a local government is not bound to recover the full proportion of the establishment cost of the network from particular premises, and allows for particular lots or uses to be subsidised. If a local government wishes to subsidise the charge for certain lots or uses (or types of lot or use), it must identify them in the ICS. The amount of the subsidy also must be recorded in the infrastructure charges register as a payment to be made by the local government, and funded from a source other than infrastructure charges.

3.6 Extrinsic (supporting) material

A key aspect of the SPA infrastructure charging regime is transparency. Potential applicants should be able to calculate the charge for their premises in advance, so this can be factored into project planning. Consequently, the PIP must specify the methodology used to calculate the charge rate and provide sufficient information for a lay person to calculate the charge rate.

If aggregated information is used in the PIP, supporting information (extrinsic material) must be available to explain how the information has been compiled. Extrinsic material is not usually included in the PIP, but must be referenced in the PIP as extrinsic material under Section 15 of the *Statutory Instruments Act 1992*. SPA[21] requires local governments to keep this material available for public inspection and purchase.

3.6.1 Specific requirements for supporting information

The supporting information should include the following about the establishment cost of trunk infrastructure and the basis for infrastructure charges:

- documents, data and background explaining how population and employment growth projections were arrived at and converted to demand for different lots and users
- how the priority infrastructure area was determined
- studies and strategies used in determining the DSS for each infrastructure network
- infrastructure planning and design models including methodology used to determine average demand for different lots and uses for each infrastructure network
- full schedules of works showing details of existing and future infrastructure
- a breakdown of costs associated with the preparation and ongoing administration of the ICS
- costs of existing and future trunk infrastructure, showing a breakdown of construction costs, design and supervision and contingency costs–The information is provided in a table for each charge area within each network. Information is included that allows the location of the infrastructure to be found on a map. Also show the year future infrastructure will be constructed
- details of how demand and establishment costs are apportioned across charge areas
- factors used to discount cash flows, including the base date, the date of estimates, an explanation of how estimates are rolled forward and the discount rate
- the proportion of the establishment cost for each network to be recovered by charges
- the proportion of the establishment cost for each network attributable to external users
- details of grants or subsidies and their treatment in the ICS.
- a copy of any spreadsheet or model showing the formulae used to calculate charges, and any supporting documentation.

[20] SPA—Section 632(1)(b)

[21] SPA—Section 724(1)(g)

The supporting material must be available to the public electronically (pdf), and to DIP and the QCA in pdf, MS Word, MS Excel and a relevant GIS program, to enable analysis of the data.

3.7 Other matters

3.7.1 PIP and ICS review

The SPA Regulation identifies former local government areas for which a review of their PIPs (including any ICS) must be undertaken at least once every five years. However, local governments should manage their PIPs and ICSs as a 'rolling' program to monitor variations in costs and demand. Adjustments are implemented to reflect the most current information when the PIP and its ICSs are reviewed.

Local governments for areas not experiencing significant growth and not listed in the SPA Regulation need not review their PIP during the life of the planning scheme, but must review the PIP when the planning scheme itself is reviewed.

3.7.2 Planning and development certificates

SPA[22] provides that, for recovering an infrastructure charge, the charge is taken to be a rate under the *Local Government Act 2009*. This means that, as a charge on the land, liability for unpaid charges will transfer with the ownership of the land.

SPA[23] states standard and full (not limited) planning and development certificates must contain information recorded for the premises in the infrastructure charges register or regulated infrastructure charges register, including the amount of any infrastructure charge for the land. Not all searches will be for standard or full planning and development certificates. Considering the implications for developers or current and future land owners, local governments are encouraged to include information regarding liability for infrastructure charges in all property-related searches.

3.7.3 Expenditure of funds

Charges collected for a network must be used to provide infrastructure for that network. Local governments must keep appropriate financial accounts to demonstrate this.

Infrastructure charges collected for particular local works on a state-controlled road must be separately accounted for, and must be used to provide the works on the state-controlled roads identified in the PFTI and schedule of works. If the state infrastructure provider and the local government agree[24], the infrastructure charge may be used to provide works for the local government road network subject to:

- For funds spent on local government infrastructure shown in a PIP, the amount of the funds must be removed from calculating the charge rates for the local government network.
- The transfer of funds must be recorded in the infrastructure charges register, identifying the works they will be spent on and the alternative funding source outside the PIP framework to compensate for any funding shortfalls for the identified works for the local function on the state controlled road network.

[22] SPA—Section 639

[23] SPA—Section 739 and 740

[24] SPA—Section 635(2)

3.7.4 Council business systems

Local governments must implement business systems to ensure infrastructure charges are calculated, levied, received, managed and expended consistent with SPA and other relevant local government legislation. A local government is not required to hold infrastructure charges levied and collected in trust[25] .

3.7.5 Infrastructure charges register

SPA[26] requires local governments to establish and maintain an infrastructure charges register or regulated infrastructure charges register that includes the following for each charge levied:

- the real property description of the land to which the charge applies
- the schedule under which the charge is levied
- the amount of the charge levied
- the unpaid amount of the charge
- the number of demand units charged for
- the approval reference number and the date the approval lapses (if the charge is levied as a result of a development approval or compliance permit)
- details of any infrastructure still to be provided (if infrastructure is to be provided instead of paying a charge)
- the charge rate, stated in the infrastructure charges schedule, for each charge levied
- if the charge rate has been adjusted for inflation:
  - details of how it was adjusted
  - the adjusted charge rates recorded for each period from the base date to the present.

In addition to the above mentioned items, the infrastructure charges register or regulated infrastructure charges register and associated business systems should also account for the following related items and have them available for public information, inspection and purchase:

- the amount of any subsidy for a particular lot or use[27], recorded as a payment to be made by the local government funded from a source other than infrastructure charges;
- separate accounting for charges recovered and spent for works for the local function of state-controlled roads[28]
- any agreements with state infrastructure providers under SPA Section 635(2) to use charges recovered for the local function of state controlled roads for works for the local government road network (see Section 3.7.3 above), including the following:
  - the amount of funds transferred between networks for this purpose;
  - identification of the works on the local government network the amount will be spent on; and
  - identification of the alternative funding source outside of the PIP framework to compensate for any funding shortfalls for the works for the local function on the state controlled road network resulting from the transfer of funds.
- the value of any trunk infrastructure (land and/or works) the developer is providing and the corresponding number of demand units to be offset against the charge (for each infrastructure charge levied)
- all infrastructure agreements relating to the provision of trunk infrastructure[29].

[25] SPA—Section 626(2)

[26] SPA—Section 724

[27] See Section 3.5.5 above

[28] See Section 3.4.4 above

[29] SPA—Section 724(1)(v)

3.7.6 Degree of detail

The degree of detail contained in the PIP and ICSs must be commensurate with:

- the complexity of the trunk infrastructure network;
- the complexity of the development environment within which the PIP and ICS will function;
- the scale and complexity of the financial undertakings addressed in the schedule.

The PIP templates provided in Appendix 2 and Appendix 3 reflect the necessary detail that should be included for higher growth and slower growing local governments respectively.

3.7.7 Infrastructure charges notice

SPA[30] outlines the information an infrastructure charges notice must contain. Local governments are encouraged to include advice in the notice about appeal rights.

Part 4—Appendix

Appendix 1

Standard inclusion and exclusions for trunk infrastructure charges

This table is not exhaustive. The items in the table should be used as a guide to determine if other items should be included or excluded from an infrastructure charge.

Network	Inclusions for infrastructure charges	Exclusions for infrastructure charges
Water supply	• water treatment and recycling facilities • water sources including dams, bores, desalination facilities • pump stations • telemetry systems • reservoirs and other storage facilities • trunk mains and associated fittings (including dual reticulation) • fire fighting devices	• non-trunk infrastructure internal to a development or to connect to trunk infrastructure and provided by developer • bulk water supply infrastructure owned by state or state entity
Sewerage	• sewerage treatment facility • sewer release systems • manholes • telemetry systems • pump stations • trunk mains and associated fittings	• non-trunk infrastructure internal to a development or to connect to trunk infrastructure and provided by developer • bulk sewerage infrastructure owned by state or state entity • non-trunk infrastructure internal to a development or to connect to trunk infrastructure and provided by developer

[30] SPA—Section 633

Network	Inclusions for infrastructure charges	Exclusions for infrastructure charges
Stormwater quantity	• pipes, box culverts, manholes, inlets and outlets • detention and retention facilities • channels and overland flow paths (natural and constructed) • bank stabilisation, erosion protection and revegetation (only as a direct result of an increase in demand)	• non-trunk infrastructure internal to a development or to connect to trunk infrastructure and provided by developer • all assets in private ownership (eg. dams, retention basins on private property) • bulk stormwater infrastructure owned by state or state entity
Stormwater quality	• riparian corridors • wetlands • gross pollutant traps (GPTs) • stormwater quality improvement devices (SQIDs) • bio-retention facilities	• non-trunk infrastructure internal to a development or to connect to trunk infrastructure and provided by developer • privately-owned riparian areas • bulk stormwater infrastructure owned by state or state entity
Roads	• collector and higher order roads predominately serving a network function • road crossings (bridges and culverts) on collector roads or higher order roads • standard items associated with the road profile including kerb and channel, lighting, signage, intersections, roundabouts, traffic lights, on-road cycle lanes, foot and cycle paths on the shoulder, basic verge revegetation including shade trees, turf and local drainage	• non-trunk infrastructure internal to a development or to connect to trunk infrastructure and provided by developer • access places, access streets • street scaping • local area traffic management on access places and streets (internal infrastructure)
State-controlled roads	• the local function of state-controlled roads within urban areas	• the state function of the state-controlled road network • land for the existing state-controlled road network
Public transport	• dedicated public transport corridors and associated infrastructure • ferry terminals • bus stops, signs and shelters	• public transport assets owned by the state or a state entity
Footpaths and cycle ways	• standard items associated with the construction of these including culverts and bridges, lighting, directional and information signage, surface marking	• non-trunk infrastructure internal to a development or to connect to trunk infrastructure and provided by developer
Land for community purposes	• land only for community facilities which allow public access, not restricted by membership, for purposes such as youth centres, senior citizens centre/meeting halls, council chambers, neighbourhood centres, meeting halls libraries, performing arts centres, museums, art galleries,	• any land for facilities not controlled by a local government • any land for facilities that has a predominant commercial activity, for example a kiosk • all land gifted to council • state forestry areas • national park areas • works and associated site works to

Network	Inclusions for infrastructure charges	Exclusions for infrastructure charges
	community centres, swimming pools • works associated with the clearing of land and connection to services	make the land suitable for building purposes
Public parks	• parks for formal and informal recreation and sporting purposes. • park embellishments including: • public amenities • shade structures • playgrounds, soft fall, safety fencing • bollards • dog off-leash areas • retaining walls • access roads and on-site car parks • footpaths and cycle ways • lighting • drink bubblers and taps • picnic tables • beach showers • line marking • turf and irrigation (of sporting fields) • barbeques • skate bowl • boat ramps and fishing platforms—built by council and open to the public • sporting facilities—goal posts, soccer nets, netball posts, half-courts, basic spectator seating • bike racks • signage • provision of services (e.g. water, power) • land contributed in lieu of payment of infrastructure charges	• all land gifted to council • state forestry areas • national parks • bushland and environmental areas (areas of these for primary park purposes may be included) • caravan parks/camping areas • parkland that is dedicated as road • club houses and other buildings • kiosks • areas where general public entry is limited • sport facilities not open to the public • reefs (artificial or natural) • beach protection areas and jetties • inshore rocks for fishing/diving • public artwork • swimming pools • groynes • life-saving towers

Application of charges for local function of state-controlled roads

Local governments with a contiguous major urban area with an existing population of more than 60 000 people are required to charge for the local function use of the state-controlled road network in that area. Local governments may choose to charge for the local function use of the state-controlled network in smaller urban areas.

The definition of 'local function' is:

- Part 1—includes all trips which start and end, and at least have part of the trip on a state-controlled road in the subject local government area.
- Part 2—the parts of trips along a state-controlled road, where the one end of the trip is in an adjacent local government area, and the proportion of the number of Part 2 trips is greater than 15 per cent of the number of Part 1 trips per day.

Local governments must calculate a local function charge using the same road charging methodology used for their roads. The land component of existing state controlled roads must be excluded from the charge.

The establishment cost for the local function of a state-controlled road (existing and future) is to be calculated as equivalent to the local government costs to build a road to accommodate the local function use of that state-controlled road only. This should be based on the local government's desired standard of service, design requirements and construction costs.

Local function charges are only to recover the local equivalent cost of actual capacity of state-controlled roads consumed by new development.

Recording and expenditure requirements for recovered local function charges are dealt with further in Sections 3.7.3 ('Expenditure of funds') and 3.7.5 ('Infrastructure charges register').

Appendix 2

Priority Infrastructure Plan Template 1

About this template
This template is for use by slower growing local governments that intend to not charge, or adopt a regulated infrastructure charges schedule (RICS) for all or some of their networks.

This template is not suitable for a PIP that contains an infrastructure charges schedule (ICS).

This template is to be read in conjunction with the supplementary user guides and template tools available from the DIP website www.dip.qld.gov.au.

Appendix 3

Priority Infrastructure Plan Template 2

About this template
This template is designed for higher growth local governments that intend to either not charge, or for those local governments intending to prepare a PIP with an infrastructure charges schedule (ICS).

However local governments may choose to substitute an ICS in this template with a regulated infrastructure charges schedule.

This template is to be read in conjunction with any supplementary user guides and tools that may be available from DIP website www.dip.qld.gov.au.

Appendix 4

Interpretation

List of acronyms

CPI	Consumer price index
DIP	Department of Infrastructure and Planning
DSS	Desired standard of service
EP	Equivalent persons
ET	Equivalent tenements
ICS	Infrastructure charges schedule
IDAS	Integrated development assessment system
SPA	*Sustainable Planning Act 2009*
PFTI	Plans for trunk infrastructure
PIA	Priority infrastructure area
PIP	Priority infrastructure plan
QCA	Queensland Competition Authority
RICS	Regulated infrastructure charges schedule

Terms and definitions

The following definitions are divided into two parts:

- Terms used in these guidelines that are defined in SPA. These definitions do not in all cases fully reproduce those in SPA, but seek to explain, and in some cases elaborate on them to enable users of the guideline to properly interpret their use in the context of the guideline. Users needing to refer to the complete statutory definitions should refer to the relevant definition in SPA.
- Terms used in these guidelines that are not defined in SPA.

Terms defined in SPA

Charge area—area of benefit in which the benefits derived by users of a trunk infrastructure network are similar.

Charge rate—the dollar amount per demand unit for a trunk infrastructure network.

Consumer Price Index (CPI)—unless otherwise stated, means the consumer price index for Brisbane.

Desired standard of service (DSS)—The standard of performance stated in the PIP for a network of development infrastructure.

Development infrastructure—

- **A.** land or works, or both land and works, for:
  - urban and rural residential water cycle management infrastructure, including infrastructure for water supply, sewerage, collecting water, treating water, stream managing, disposing of waters and flood mitigation, but not urban and rural residential water cycle management infrastructure that is state infrastructure
  - transport infrastructure, including roads, vehicle lay-bys, traffic control devices, dedicated public transport corridors, public parking facilities predominantly serving a local area, cycle ways, pathways, ferry terminals and the local function, but not any other function, of state-controlled roads

  - public parks infrastructure supplied by a local government, including playground equipment, playing fields, courts and picnic facilities
- **B.** land, and works that ensure the land is suitable for development, for local community facilities, including, for example:
  - community halls or centres
  - public recreation centres
  - public libraries.

Establishment cost—in relation to a trunk infrastructure network:

- **A.** the cost of preparing an infrastructure charges schedule, including the desired standards of service and plans for trunk infrastructure used to calculate the charges stated in the infrastructure charges schedule
- **B.** on-going administration costs for the infrastructure charges schedule for the infrastructure
- **C.** for future infrastructure—all costs for the design, financing and construction of the infrastructure and for land acquisition for the infrastructure
- **D.** for existing infrastructure—
  - the residual financing cost of the existing infrastructure
  - the cost of reconstructing the same works using contemporary materials, techniques and technologies
  - if the land acquisition for the infrastructure was completed after 1 January 1990—the value of the land at the time it was acquired, adjusted for inflation.

Infrastructure charge—A monetary amount levied by a local government on premises for access to a trunk infrastructure network.

Infrastructure charges notice—A notice requiring the payment of an infrastructure charge levied on premises.

Infrastructure charges register—A register of relevant details relating to infrastructure charges levied by a local government.

Infrastructure charges schedule (ICS)—A schedule that states all of the following for each trunk infrastructure network identified in the schedule:

- the establishment cost of the network
- the proportion of the establishment cost to be funded by a charge (an infrastructure charge) under the schedule
- each area in which an infrastructure charge applies
- for each area mentioned in paragraph (c):
  - the proportion of the establishment cost to be funded by an infrastructure charge applying in the area
  - the estimated demand for infrastructure in the area
  - the charge rate for calculating the infrastructure charge
- the method used by the local government to decide the charge rate
- each type of development to which an infrastructure charge applies
- how the infrastructure charge to be levied is calculated.

Non-trunk infrastructure—Development infrastructure that is not trunk infrastructure.

Planning scheme—The planning scheme for a local government area prepared in accordance with SPA requirements.

Plans for trunk infrastructure—The part of a priority infrastructure plan that identifies the trunk infrastructure networks that exist, or is planned to be supplied, to service future growth in the local government's area to meet the desired standard of service stated in the plan.

Priority infrastructure area (PIA)—The part of the local government area:

- that is used, or approved for use, for any or all of the following:
  - residential purposes, other than rural residential purposes
  - retail and commercial purposes
  - industrial purposes
  - community and government purposes related to a purpose mentioned above; and
- that will accommodate at least 10 years, but not more than 15 years, of growth for any of the purposes mentioned above
- It also includes an area not mentioned above that:
  - the local government decides to include in the area; and
  - is serviced by development infrastructure.

Priority infrastructure plan (PIP)—The part of a planning scheme that integrates land use and infrastructure planning by providing for the matters stated in Section 1.1.3.

Regulated infrastructure charge—A charge for a premises for a trunk infrastructure network identified in a priority infrastructure plan, calculated in accordance with a Regulated Infrastructure Charges Schedule.

Regulated infrastructure charges notice—A notice requiring the payment of a regulated infrastructure charge levied on premises.

Regulated infrastructure charges register—A register of relevant details relating to regulated infrastructure charges levied by a local government.

Regulated infrastructure charges schedule (RICS)—A schedule adopted by a local government that states the regulated charges for the establishment cost of a trunk infrastructure network identified in a priority infrastructure plan, limited to amounts set out in a regulation to the Act.

Trunk infrastructure—Development infrastructure identified in a priority infrastructure plan as trunk infrastructure.

Terms used in these guidelines

Base date—The date from which a local government has estimated its projected infrastructure demands and costs.

Charge area—The area to which a charge rate applies.

Demand unit—Unit of demand that applies to each type of infrastructure to express the demand represented by different types of lots or uses.

Planning assumptions—assumptions about the type, scale, location and timing of future development.

Projection area/s—area or areas within a local government area for which a local government carries out population and employment growth projections.

Ultimate development—The extent of development anticipated when a site or locality is fully developed.

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